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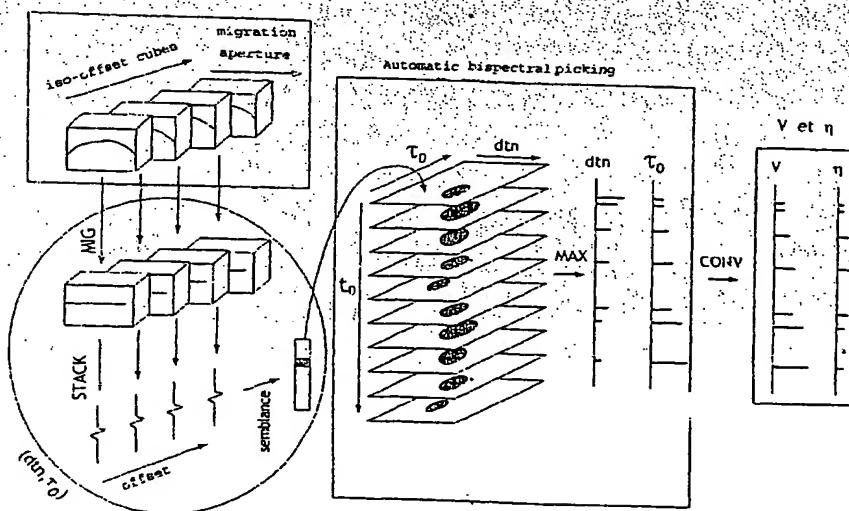
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(54) Title: METHOD FOR BISPECTRAL PICKING OF ANELLIPTICAL NMO CORRECTION PARAMETERS



(57) Abstract: Method of determining the velocity  $V$  and anellipticity  $\eta$  parameters for processing seismic traces in a common midpoint (CMP) gather comprising: - a preliminary step to define a plurality of nodes ( $dt_n, t_0$ ) - for each node ( $dt_n, t_0$ ) defined in the preliminary step, the following steps: - for static NMO correction of traces in the CMP gather as a function of the values of the said parameters  $dt_n$  and  $t_0$  at the node considered, and calculation of the semblance function associated with the said NMO correction for the node considered; and - for each picked time  $t_0$ , a step including determination of the maximum semblance node ( $dt_n(t_0), t_0(t_0)$ ) - and a final step to convert the  $dt_n(t_0)$  and  $t_0(t_0)$  parameters, so as to obtain the velocity ( $t_0$ ) and anellipticity  $\eta(t_0)$  laws.

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